

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No. 09/732,705

Q1
cont
2. (Once amended) A speaker system according to claim 1, wherein the amplitude detecting means comprises:

velocity detecting means for detecting a velocity of the diaphragm of the speaker to produce a velocity signal; and

integrating means for integrating the velocity signal to produce the amplitude signal.

position
diaphragm

Please add following new claims

A4. A speaker system according to claim 3, wherein the velocity detecting means detects the velocity based on a voltage applied to the speaker and a current flowing through the speaker.

a2
5. A speaker system comprising:
a speaker,
a detecting circuit which detects an operational characteristic of a diaphragm of the speaker and outputs a corresponding detection signal;
a low pass filter which integrates the detection signal to generate an amplitude signal; and
a positive feed back circuit which positively feeds back the amplitude signal into a driving signal for driving the speaker,
wherein the low pass filter has a cutoff frequency that is lower than a lowest resonance frequency of the speaker.

6. A speaker system according to claim 5, wherein the detecting circuit detects the operational characteristic based on a voltage applied to the speaker and a current flowing through the speaker.

7. A speaker system according to claim 5, wherein the operational characteristic comprises velocity.

a²
cont

8. A speaker system comprising:
a speaker,
a detecting circuit which detects an operational characteristic of a diaphragm of the speaker and outputs a corresponding detection signal, wherein the detecting circuit detects the operational characteristic based on a voltage applied to the speaker and a current flowing through the speaker;
a low pass filter which integrates the detection signal to generate an amplitude signal; and
an positive feed back circuit which positively feed backs the amplitude signal into a driving signal for driving the speaker.

9. A speaker system according to claim 8, wherein the low pass filter has a cutoff frequency that is lower than a lowest resonance frequency of the speaker.

10. A speaker system according to claim 8, wherein the operational characteristic comprises velocity.

11. A speaker driving method comprising;
detecting an operational characteristic of a diaphragm of a speaker;
producing a detection signal based on said operational characteristic;
integrating the detection signal to produce an amplitude signal;
positively feeding back the amplitude signal into a driving signal for driving the speaker.

a²
cont
12. A speaker driving method according to claim 11, wherein the detection signal is integrated by a low pass filter having a cutoff frequency that is lower than a lowest resonance frequency of the speaker.

13. A speaker driving method according to claim 11, wherein the operational characteristic is detected based on a voltage applied to the speaker and a current flowing through the speaker.

14. A speaker driving method according to claim 11, wherein the operational characteristic comprises velocity.

15. A speaker driving method comprising: